

## **The Nutritional Value of Five Species of Microalgae for Spat of the Silver-Lip Pearl Oyster, *Pinctada maxima* (Jameson)(Mollusca: Pteriidae)**

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### **Abstract**

A feeding trial was conducted to assess the nutritional value of five monospecific microalgal diets for spat of the silver-lip (or gold-lip) pearl oyster, *Pinctada maxima*. The five species tested were *Isochrysis* aff. *galbana* (T-ISO), *Pavlova lutheri*, *Chaetoceros muelleri*, *Chaetoceros calcitrans* and *Tetraselmis suecica*. Spat were 75-d old at the start of the growth trial which ran for 21 d. Pearl oyster spat fed *C. muelleri* showed the largest increase in ash-free dry weight (organic content), which was significantly greater ( $P < 0.05$ ) than for any other species. The mean ash-free dry weight (AFDW) of spat fed *T. suecica* and T-ISO did not differ significantly from each other, but were significantly greater than for spat fed *C. calcitrans* and *P. lutheri* ( $P < 0.05$ ). The final AFDW of spat fed *P. lutheri* was not significantly different from that of unfed spat ( $P > 0.05$ ). Differences in the food value of the five species of algae could not be explained by their reported nutrient composition alone. The results illustrate the importance of experimental testing of algal diets for bivalve spat rather than sole reliance on published nutritional values.